Trends in Oral Anticoagulant Prescriptions and Major Bleeding complications: a comparison of NHS CCG prescription data with cases from a prospective study (ORANGE) between October 2013 and June 2015

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There remains some uncertainty about the bleeding complications associated with oral anticoagulants (OAC), particularly for the newer direct OAC (DOAC). Since October 2013, the ORANGE study has been collecting information on the presentation, management and clinical outcome of patients who develop major bleeding whilst on OAC. As of June 2015, 31 hospitals across the UK (25 England, 2 Scotland, 3 Wales, 1 Northern Ireland) have reported 1085 major bleeds (84% warfarin; 16% DOAC). The aim of this abstract was to compare the proportion of bleeding cases on OAC in the ORANGE study, with general OAC prescription trends during the same periods. **Methods**: NHS England clinical commissioning group (CCG) data for the number of warfarin and DOAC (rivaroxaban, dabigatran and apixaban) prescriptions were analysed for 4 periods: (1) October 2013-March 2014; (2) April-September 2014; (3) October 2014-March 2015; (4) April-June 2015. These were adjusted for those CCGs represented in the ORANGE study using weights derived from CCG-hospitals stroke referral data for the same periods, obtained from the Sentinel Stroke National Audit Programme. Exact prescription records for Glasgow Royal Infirmary catchment population were also included. The number of major bleeds on OAC for each period was obtained directly from ORANGE study records. **Results**: The proportion of DOAC prescriptions increased over time (5%, 8%, 12%, 16% for periods 1, 2, 3, 4 respectively), as did the proportion of DOAC major bleeds reported to ORANGE (9%, 10%, 18%, 21% respectively). From October 2013 to June 2015, the total number of OAC prescriptions per quarter, for all NHS CCGs, increased by 13.8% (DOAC: 300% increase; warfarin: 0.3% decrease). **Conclusion**: The pattern of major bleeds on OAC reported to the ORANGE study appears to be consistent with the changing proportions of warfarin vs. DOAC prescriptions over time, within the subgroup of CCGs represented in the study.